

association between the difference in FSW HIV prevalence between rounds (R2–R1)(D.FSW HIV) and different classes of factors (Abstract P1-S6.07 table 1). Intervention factors included differences between rounds in consistent condom use (CCU) with occasional clients, difference in STI prevalence, or fraction of FSW in contact with the intervention at R1, and others (see Abstract P1-S6.07 table 1). Baseline contextual factors included FSW HIV or STI prevalence, fraction of FSW ever asked for anal intercourse (AI), weekly client number per FSW etc at R1, estimates of CCU in 1998, and increase in CCU before R1. Design factors (date of R1, time between R2–R1, differences in response rate between R2 and R1), and differences in contextual factors between rounds as listed Abstract P1-S6.07 table 1 were also explored. Pearson correlations, univariate and multiple linear regression analysis were performed.

**Results** In univariate analyses, D.FSW HIV prevalence was negatively associated with R1 FSW HIV prevalence ( $r=-0.53$ ), R1 HSV-2 and Tp prevalence, difference in response rate, % asked for AI at R1 (Abstract P1-S6.07 table 1). D.FSW HIV prevalence was positively associated with differences in syphilis ( $r=0.36$ ) or in HSV-2 prevalence or in % asked for AI. In multivariate analysis, R1.FSW HIV prevalence (slope= $-0.57$ ) and estimated CCU in 1998 (slope= $0.29$ ) ( $R=0.73$ ), or R1.FSW HIV (slope= $0.19$ ) and D. FSW HSV-2 (slope= $-0.83$ ) prevalence ( $R=0.66$ ) were significantly associated with D.FSW HIV prevalence ( $p<0.01$ ).

**Conclusion** Contemporary time trends in HIV prevalence are influenced by epidemic stages and historical condom use for many years. HIV prevalence is more (less) likely to decline after effective interventions introduced in mature (early) epidemics. R2 was conducted too early after R1 to expect large decline in HIV. Without control group, mathematical modelling is required to simulate counterfactuals and estimate intervention impact.

## Epidemiology poster session 6: Preventive intervention: Screening

### P1-S6.08 A MULTIFACETED INTERVENTION TO INCREASE CHLAMYDIA TESTING IN AUSTRALIAN GENERAL PRACTICE

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**Background** The Australian Government has funded the Australian Chlamydia Control Effectiveness Pilot (ACCEPt), a randomised controlled trial of a chlamydia testing intervention to assess the feasibility, acceptability and cost-effectiveness of chlamydia testing in general practice clinics. There are well documented barriers to increased chlamydia testing in general practice including time, cost, and clinicians' knowledge and awareness of chlamydia. If an intervention is to successfully increase chlamydia testing, it must minimise these barriers and take the uniqueness of each general practice into consideration. This paper describes the chlamydia testing intervention being implemented in ACCEPt.

**Methods** Clinics in the intervention group are being provided with a multifaceted evidence-based intervention designed to increase annual chlamydia testing for sexually active 16–29 year olds. The intervention includes: a computer alert prompting GPs to test; incentive payments for GPs and practice nurses to conduct testing; an annual recall system involving SMS, phone or mail reminders; a comprehensive education pack; and regular feedback on testing performance. The intervention will be in place for up to 4 years, and will be tailored to the resources and needs of each clinic. Prior to implementation, clinic staff are engaged and given the opportunity to identify methods for improving chlamydia testing within their clinic, using an evidence-based practice assessment tool.

**Results** To date, 69 clinics in 24 areas have been recruited across three Australian states. Four of these areas (9 clinics) have been randomised: two areas (7 clinics) are in the intervention group, and two areas (2 clinics) in the control group. The intervention has been customised to each clinic with two thirds of clinics receiving the computer alert, 4 clinics using SMS reminders for recall, others using a mail recall and some using practice nurses to initiate chlamydia testing. Where possible, doctors and practice nurses have been given one on one education and training about chlamydia and pelvic inflammatory disease.

**Conclusions** Given that each Australian general practice is unique, it is vital that the intervention is tailored to individual clinic needs to achieve sustainable system changes. This enables maximum staff engagement to ensure the effective uptake of increased chlamydia screening in the Australian general practice setting.

### P1-S6.09 AN AUDIT OF MANAGEMENT OF PRENATAL SYPHILIS SEROLOGY IN THE STI CLINIC, CALGARY, AB, CANADA

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**Background** Outbreaks of syphilis have been occurring across Canada since 2001, with the province of Alberta having the 2nd highest incidence in 2007. As a result, there has been a national increase in the number of reported congenital cases. Current Canadian guidelines recommend performing syphilis serology at the 1st prenatal visit with rescreening at 28–32 weeks gestation, and at delivery in high-risk women. In our center, any positive syphilis serology is referred to the Calgary STI Clinic for staging and treatment recommendations. This is an internal audit of positive prenatal syphilis serologies from 2009 to 2010.

**Methods** Charts from pregnant women with a positive prenatal syphilis serology, defined as a positive or indeterminate syphilis EIA, from 1 January 2009 to 31 December 2010 were retrospectively reviewed. Syphilis staging was performed by the Medical Director according to national criteria.

**Results** 48 charts were reviewed: 9 were staged as biological false positives, 22 were previously adequately treated women with low or negative RPR titres not suggestive of reinfection, 13 were late latent (LL) treated with 7.2 µ of benzathine penicillin (PCN), and 4 were early latent (EL) treated with 2.4 µ of benzathine PCN. The mean number of days it took from receipt of a positive serology to contacting the patient were 9.8, 10.2, 2.3, and 1.8, respectively. The mean time to 1st dose of PCN was 8.8 for EL and 17.8 for LL (see Abstract P1-S6.09 table 1). There was 1 case of congenital syphilis in an infant whose mother presented in labour with no prenatal care—her RPR was 1:256. 1 woman with an RPR titre of 1:128 was treated with benzathine PCN 1 week before her estimated date of delivery. She went into preterm labour the afternoon post-injection; it is unclear whether or not the injection induced preterm labour. Her twins were treated with iv PCN with no adverse outcomes.

Abstract P1-S6.09 Table 1

Syphilis Stage = (N)/48	Range (days) from Start of Investigation to First Contact	Mean Number of Days to First Contact	Mean Number of Days to 1 <sup>st</sup> Dose
Biological False Positives=9	1–29	9.8	N/A
Previously Treated=22	1–31	10.2	N/A
Early Latent=4	0–4	1.8	8.8
Late Latent=13	0–7	2.3	17.8 (5.2 if outliers removed)*

\*3 patients were difficult to contact or noncompliant, taking 44, 54, and 68 days.